5. (Twice Amended) The method according to Claim [3] 27, wherein [the metal element] said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

6. (Twice Amended) The method according to Claim [4] 29, wherein [the metal element] said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

7. (Amended) The method according to Claim [3] 27, wherein a temperature range for the heating is 450°C to 550°C.

8. (Amended) The method according to Claim [4] 29, wherein a temperature range for the heating is 450°C to 550°C.

9. (Amended) The method according to Claim [3 wherein laser or equivalent strong light is selectively irradiated on and around the region the metal element has been introduced after crystallizing by the heating] 27 further comprising a step of irradiating at least the first region of the semiconductor film with a laser or a light having an equivalent intensity.

10. (Amended) The method according to Claim [4 wherein laser or equivalent strong light is selectively irradiated on and around the peripheral circuit region the metal element has been introduced after crystallizing by the heating] 29 further comprising a step of irradiating at least the first region of the semiconductor film with a laser or a light having an equivalent intensity.

11. (Amended) The method according to Claim [3, wherein the metal element is introduced by applying or spin-coating a substance containing the metal element] 27 wherein said catalyst containing material is disposed by spin-coating.

12. (Amended) The method according to Claim [4, wherein the metal element is introduced by applying or spin-coating a substance containing the metal element] 29 wherein said catalyst containing material is disposed by spin-coating.

16. (Amended) The method of Claim [14] 31, wherein [the metal element] said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

19. (Amended) The method according to Claim [18] 33 wherein said glass substrate [includes] is Corning 7059.

26. (Amended) The method of claim [15] 27 wherein [the] said concentration of [the metal element] said catalyst containing material is measured by secondary ion mass spectrometry.

Please add new claims 27-48 as follows:

--27. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said

semiconductor film having a first region and a second region;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower.

28. A method according to Claim 27 wherein said semiconductor film to be crystallized is in an amorphous state.

29. A method of manufacturing a semiconductor device used for an active matrix type electro-optical display, comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region and a second region;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the

semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate; and

after the crystallization of said semiconductor film, forming a first thin film transistor by using said crystals of the semiconductor film and a second thin film transistor by using the second region of the semiconductor film,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower, and

wherein the first thin film transistor is so arranged that said crystals extend along with a direction in which carriers of said first transistor flow.

30. A method according to Claim 29 wherein said semiconductor film to be crystallized is in an amorphous state.

31. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region and a second region;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said

crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower, and

wherein a concentration of said catalyst in said second region is lower than that in said first region.

32. A method according to claim 31 wherein said semiconductor film to be crystallized is in an amorphous state.

33. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a glass substrate having a glass strain point of 593° or less, said semiconductor film having a first region and a second region;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in

said first region extending parallel with the major surface of the substrate,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower.

34. A method according to Claim 33 wherein said semiconductor film to be crystallized is in an amorphous state.

35. A method according to Claim 33 wherein said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

36. A method of manufacturing a semiconductor device for an active matrix type electro-optical display having a driving circuit portion and a display portion comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region on said driving circuit region and a second region on said display portion;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate; and

after the crystallization of said semiconductor film, forming a first thin film transistor by using said crystals of the semiconductor film and a second film transistor by using the second region of the semiconductor film, and

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower.

37. A method according to Claim 36 wherein said semiconductor film to be crystallized is in an amorphous state.

38. A method according to Claim 36 wherein said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

39. A method of manufacturing a semiconductor device for an active matrix type electro-optical display having a driving circuit portion and a display portion, comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region on said driving circuit portion and a second region on said display portion;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the

semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate; and

after the crystallization of said semiconductor film, forming a first thin film transistor by using said crystals of the semiconductor film and a second thin film transistor by using the second region of the semiconductor film,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower, and

wherein said first thin film transistor is so arranged that said crystals extend along with a direction in which carriers of said first transistor flow.

40. A method according to Claim 39 wherein said semiconductor film to be crystallized is in an amorphous state.

41. A method according to Claim 39 wherein said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

42. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region and a second region;

disposing a catalyst containing material in contact with a selected region of only the first region of the semiconductor film, said catalyst being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said

crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said catalyst through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate,

wherein a concentration of said catalyst in said first region is 1×10^{19} atoms/cm^3 or lower, and

wherein said first region and said second region each includes hydrogen.

43. A method according to Claim 42 wherein said semiconductor film to be crystallized is in an amorphous state.

44. A method according to Claim 42 wherein said catalyst containing material comprises one of Ni, Fe, Co, Pd and Pt.

45. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region and a second region;

disposing nickel in contact with a selected region of only the first region of the semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said nickel through the

semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate,

wherein a concentration of said nickel in said first region is 1×10^{19} atoms/cm^3 or lower.

46. A method according to Claim 45 wherein said semiconductor film to be crystallized is in an amorphous state.

47. A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region and a second region;

disposing nickel in contact with a selected region of only the first region of the semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said nickel through the semiconductor film, thereby crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate,

wherein a concentration of said nickel in said first region is 1×10^{19} atoms/cm^3 or lower and higher than that in said second region.

48. A method according to Claim 47 wherein said semiconductor film to be crystallized is in an amorphous state.--